First patient from Geron spinal cord injury trial speaks up

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A story by Rob Stein at the Washington Post is reporting that the first patient to participate in Geron's groundbreaking embryonic stem cell-based trial for spinal cord injury has come forward.

This is both exciting news and no news. It's exciting because scientists and people living with spinal cord injury and their families are all watching this trial closely. Any news is of interest. However, at this point it's too soon to know if the cells have been effective.

For those who haven't been following this story, Geron is conducting a trial in which they inject primitive neural cells derived from embryonic stem cells into the region surrounding a recent spinal cord injury. In work with rodents conducted by CIRM grantee Hans Keirstead at the University of California, Irvine, the cells were able to restore movement to the hind limbs after an injury. (As an aside, that earliest work was conducted through funds from the Roman Reed Spinal Cord Injury Research Act, which is currently being debated by the state.)

The first patient was Timothy J. Atchison of Chatom, Ala. According to the Washington Post:

> Atchison, known as T.J. to his family and friends, was a student at the University of South Alabama College of Nursing when his car crashed on Sept. 25, which, Atchison noted, was the birthday of Christopher Reeve, the actor who suffered a devastating spinal cord injury.

After undergoing emergency treatment at a regional medical center, Atchison was transferred to the Shepherd Center in Atlanta, which specializes in spinal cord injuries, for rehabilitation. It was there that he agreed to let doctors inject him with the drug - more than 2 million cells made from stem cells into his spine, he said.
Like all initial trials in the U.S., this one is primarily testing whether the cells are safe, but of course it is also being closely watched for signs that the cells were effective (read more from the NIH about phases of a clinical trial). It's too soon for scientists to know whether the injected cells are able to help repair damage after spinal cord injury such as the one Atchison suffered after his car crashed.

Geron intends to test the cells on 10 people at seven sites around the country, of which Stanford University recently announced it was one. The Washington Post describes the procedure:

> Surgeons planned to use specially designed equipment to infuse into the first patient's spine about 2 million "oligodendrocyte progenitor" cells, which Geron scientists had created in the laboratory from embryonic stem cells obtained from days-old embryos left over from fertility treatments. The hope is that the cells will form a restorative sheath around the damaged spinal cord. In tests in hundreds of rats, partially paralyzed animals regained the ability to move, according to Geron.
> The Geron trial isn't the only approach to using stem cells to treat spinal cord injury, though it is the first to clinical trial. Here's a list of CIRM grantees working on other approaches, including some using adult, embryonic or reprogrammed iPS cells.

A.A.

Tags: Geron, Roman Reed, Stanford University, spinal cord injury